



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,548	02/11/2004	Melissa Jane Buco	YOR920030592US1	3123

7590 06/27/2007
Ryan, Mason & Lewis, LLP
90 Forest Avenue
Locust Valley, NY 11560

EXAMINER

ROSE, HELENE ROBERTA

ART UNIT	PAPER NUMBER
----------	--------------

2163

MAIL DATE	DELIVERY MODE
-----------	---------------

06/27/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/776,548	Applicant(s) BUCO ET AL.	
	Examiner Helene Rose	Art Unit 2163	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Detailed Action

1. In response to communication entered on 4/17/2007, Claims 1-37 are pending. No claims were added, cancelled or amended.
2. Applicants arguments with respect to claims 1-37 have been considered but are not persuasive.

Claim Rejections – 35 U.S.C – 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over MEDJAHED et al. (Non-Patent Literature, Business-to-Business: issues and enabling technologies Interactions, May, 2003, Volume 12, Issue 1, hereinafter, MEDJAHED) in view of COLLOMB (US Publication No. 2003/0212778, Date Filed: July 16, 2002).

Claims 1, 28 and 29:

Claims 1, 28 and 29 discloses a method/an article of manufacture/a data store utilizing the same functionality, MEDJAHED teaches a method/an article of manufacture/data store managing data associated with a given domain, comprising the steps of:

maintaining a specification of data attributes representing one or more types of data to be managed (Business-to-Business Interactions, May, 2003, page 69, section 4.1, first and second paragraph, MEDJAHED);

MEDJAHED disclose the limitation above. However, MEDJAHED does not disclose wherein "maintaining a specification of algorithms representing one or more types of operations performable in

Art Unit: 2163

accordance with the data attributes", NOR does MEDJAHED disclose, "maintaining a specification of relationships representing relationships between the data attributes and the algorithms".

On the other hand, COLLOMB discloses "maintaining a specification of algorithms representing one or more types of operations performable in accordance with the data attributes" (paragraph [0073], wherein a class is a named description of a set of objects that share the same attributes, operations, methods, relationships, and semantics, which is equivalent to "one or more operations"; paragraph [0102], wherein the calculation of secondary parameters begins with values to primary parameters, wherein secondary parameters are defined by expressions that may operate on primary and/or secondary parameters, and wherein this allows for efficient algorithm modularization; paragraph [0104], wherein calculation expressions are modeled using UML sequence diagrams, wherein sequence diagram interaction focuses on the time-ordering of messages, wherein algorithm is interpreted to be "a mathematical rule or procedure for solving a problem ", which is equivalent to the "calculation being performed"; paragraph [0105], wherein expressions are defined as operations on a global utility class, and wherein the expressions or on an associated parent class or classes, and wherein the expression class defines one or more expressions such as the assignment, difference, minimum, maximum, and so forth, which is equivalent and interpreted to be an algorithm, which is equivalent to "specification of algorithms representing one or more types of operations performable in accordance with the data attributes", COLLOMB) and "maintaining a specification of relationships representing relationships between the data attributes and the algorithms" (paragraph [0073], wherein a class is named description of a set of objects that share the same attributes, operations, methods, relationships, and semantics, wherein a class diagram is a diagram that shows a set of classes, interfaces, and or collaborations and the relationships among these elements; paragraphs [0096-0097], wherein RDBMS allow users to establish relationships between columns of different tables, wherein for example, a user can determine which parameter values are associated with a given instance of a concrete service component, which normally each relationship is accomplished through the use of a "key" column in the related tables that contains a shared value unique to the associated records; paragraph [0097] an action procedure, or "trigger," is an RDBMS mechanism that operates each time a column value is updated within a table; and

Art Unit: 2163

paragraph [0099], wherein the triggers associated to a table column can be used to compute the secondary parameters and/or aggregation values, wherein for the secondary parameter calculations, a trigger may be declared for: 1) each column storing primary parameter values needed to compute a secondary parameter value, and 2) each column storing secondary parameter values needed to compute another secondary parameter value, and wherein algorithm is interpreted to be "a mathematical rule or procedure for solving a problem ", which is equivalent to an "calculation being performed" COLLOMB);

It would have been obvious at the time of the invention was made for one person of the ordinary skill in the art to modify the disclosure of MEDJAHED with COLLOMB for the purpose of implementing an improved method for providing a more resourceful work flow for managing relational data.

wherein the data attribute specification, the algorithm specification and the relationship specification are maintained in a storage framework having multiple levels (page 72, 1st column, wherein ebXML provides a set of common business process specifications that are shared by multiple industries, wherein theses specifications stored in the business library can be used by companies to build customized business processes, wherein the multiple industries and wherein these specifications are stored in the business library is interpreted to be storage framework, MEDJAHED), the multiple levels being specified based on the given domain with which the data being managed is associated (Business-to-Business Interactions, May, 2003, page 71, 2nd column, wherein 4.1.5. ebXML is defined, wherein Business documents are composed of three types of components: core components, domain components, and business information objects, which is interpreted to be the "multiple levels", and wherein core components, stored in the core library, are information components that are re-usable across industries and *domain components* and *business information objects* are larger components stored in the *domain library* and *business library*, which is interpreted to be "based on the given domain with which the data being managed is associated, MEDJAHED).

Claim 2:

Claim 2, the combination of MEDJAHED in view of COLLOMB teaches wherein the multiple levels of the storage framework comprise hierarchical levels such that one level of the storage framework

Art Unit: 2163

is a refinement of another level of the storage framework (Business-to-Business Interactions, May, 2003, page 60, section 2.1, first paragraph, MEDJAHED).

Claim 3:

Claim 3, the combination of MEDJAHED in view of COLLOMB teaches wherein the hierarchical levels of the storage framework maintain at least one of the data attributes, the algorithms and the representations in a template-based representation (Business-to-Business Interactions, May, 2003, page 76, first column, second paragraph, wherein "it uses its contract manager to send a contract template to a trader or matchmaking engine" MEDJAHED).

Claim 4:

Claim 4, the combination of MEDJAHED in view of COLLOMB teaches wherein data attributes are represented so as to expose at least one of a nature of the data through a plurality of ontologies, a structure of the content of the data, and a structure of a mechanism by which the data may be retrieved (Business-to-Business Interactions, May, 2003, page 81, wherein table 1 is defined and JAVA RMI, MEDJAHED).

Claim 5:

Claim 5, the combination of MEDJAHED in view of COLLOMB teaches wherein the algorithms are represented so as to expose at least one of a nature of the algorithms through a plurality of ontologies, a structure of parameters of the algorithms expressed according to a nature of the data attributes, and a structure of a mechanism by which code for the algorithms may be retrieved (Business-to-Business Interactions, May, 2003, page 69, second column, first paragraph and page 7, section 6.4, first and second paragraph, MEDJAHED).

Claim 6:

Claim 6, the combination of MEDJAHED in view of COLLOMB teaches wherein the relationships between the data attributes and the algorithms are represented in support of a plurality of computations for computing domain-specific results (Business-to-Business Interactions, May, 2003, page 69, second column, first paragraph and page 7, MEDJAHED).

Claim 7:

Claim 7, the combination of MEDJAHED in view of COLLOMB teaches the step of, in accordance with an application, retrieving at least a portion of the data attributes and the algorithms to perform a computation sequence (Business-to-Business Interactions, May, 2003, page 75, first paragraph, MEDJAHED).

Claim 8:

Claim 8, the combination of MEDJAHED in view of COLLOMB teaches wherein the computation sequence is based on a specification of a computation start point and a computation end point as described by a data flow graph (Business-to-Business Interactions, May, 2003, page 78, first column and first paragraph, MEDJAHED).

Claim 9:

Claim 9, the combination of MEDJAHED in view of COLLOMB teaches the step of, in accordance with an application, one of creating and managing templates (Business-to-Business Interactions, May, 2003, page 77, first paragraph and section 6.3, wherein the first paragraph is defined, MEDJAHED).

Claim 10:

Claim 10, the combination of MEDJAHED in view of COLLOMB teaches the step of, in accordance with an application, one of populating and managing a template instance for a particular template (Business-to-Business Interactions, May, 2003, page 82, wherein table 4 is defined and wherein adaptability column is illustrated, fifth row, MEDJAHED).

Claim 11:

Claim 11, the combination of MEDJAHED in view of COLLOMB teaches wherein relationships between data attributes, which support non-processing relationships, are maintained in support of a plurality of functions (Business-to-Business Interactions, May, 2003, page 71, section 4.1.3, first paragraph, MEDJAHED).

Art Unit: 2163

Claim 12:

Claim 12, the combination of MEDJAHED in view of COLLOMB teaches wherein the data attributes and the algorithm are verifiable with respect to at least one of consistency and correctness (Business-to-Business Interactions, May, 2003, page 70, section 4.1.2, first paragraph, MEDJAHED).

Claim 13:

Claim 13, the combination of MEDJAHED in view of COLLOMB teaches the step of deferring a decision as to whether to apply a computation step in support of a desired result from a computation sequence in accordance with metadata within the storage framework (Business-to-Business Interactions, May, 2003, page 66, section 3.2.2, second paragraph, MEDJAHED).

Claim 14:

Claim 14, the combination of MEDJAHED in view of COLLOMB teaches wherein a relationship is maintained between data at a domain specification level of the storage framework and an instance specification level of the storage framework (Business-to-Business Interactions, May, 2003, page 73, section 4.2.2, third paragraph, MEDJAHED).

Claim 15:

Claim 15, the combination of MEDJAHED in view of COLLOMB teaches the step of, in accordance with an application, traversing one or more processing relationships among a plurality of templates and template instances maintained in accordance with the storage framework so as to ascertain one or more computation relationships (Business-to-Business Interactions, May, 2003, page 74, section 4.2.3, fourth paragraph, MEDJAHED).

Claim 16:

Claim 16, the combination of MEDJAHED in view of COLLOMB teaches wherein the given domain comprises a service level management domain (Business-to-Business Interactions, May, 2003, page 79, wherein the table 1 is defined, MEDJAHED).

Claim 17:

Claim 17, the combination of MEDJAHED in view of COLLOMB teaches wherein the service level management domain supports proactive management of a plurality of service level agreements allowing

Art Unit: 2163

one or more of service level agreement reporting, a customer-related business impact evaluation and a service provider internal business impact evaluation in accordance with relationships represented within flow graphs associated with the storage framework (Business-to-Business Interactions, May, 2003, page 75, section 5.2, first paragraph and page 77, section 6.4, second paragraph, MEDJAHED).

Claim 18:

Claim 18, the combination of MEDJAHED in view of COLLOMB teaches wherein the data attributes comprise service level management data elements, the algorithms comprise service level management algorithms, and the relationships comprise service level management relationships (Business-to-Business Interactions, May, 2003, page 65, Figure 4, MEDJAHED).

Claim 19:

Claim 19, the combination of MEDJAHED in view of COLLOMB teaches wherein the service level management data elements comprise one or more of service level agreement contract data, internal service level management data, and service level management algorithm specifications (REFER to claim 17, wherein this limitation is substantially the same, MEDJAHED).

Claim 20:

Claim 20, the combination of MEDJAHED in view of COLLOMB teaches wherein the service level management algorithms comprise one or more of measurement data adjudication and service level evaluation for a particular category of data element (Business-to-Business Interactions, May, 2003, page 62, second column, first paragraph, MEDJAHED).

Claim 21:

Claim 21, the combination of MEDJAHED in view of COLLOMB teaches wherein the service level management relationships comprise evaluation in accordance with flow graph specifications and relationship management between service level agreement data and internal service level management data (Business-to-Business Interactions, May, 2003, page 74, section 4.2.3, the forth paragraph, MEDJAHED).

Art Unit: 2163

Claim 22:

Claim 22, the combination of MEDJAHED in view of COLLOMB teaches wherein relationships between service level agreement contract data and other service level management data are maintained in support of a plurality of service level management functions (Business-to-Business Interactions, May, 2003, page 73, and second column, first paragraph, MEDJAHED).

Claim 23:

Claim 23, the combination of MEDJAHED in view of COLLOMB teaches the step of, in accordance with an application, traversing one or more service level management related processing relationships among a plurality of templates and template instances maintained in accordance with data flow graphs as maintained within the storage framework so as to ascertain one or more service level management computation relationships (Business-to-Business Interactions, May, 2003, Figure 7, MEDJAHED).

Claim 24:

Claim 24, the combination of MEDJAHED in view of COLLOMB teaches the step of prioritizing one or more data access requests based on a service provider business impact assessment to the storage framework so as to sequence data results in accordance with one or more service management objectives (Business-to-Business Interactions, May, 2003, page 73, section 4.2.2, second paragraph, MEDJAHED).

Claim 25:

Claim 25, the combination of MEDJAHED in view of COLLOMB teaches wherein data is obtainable from one or more semantically equivalent data sources (Business-to-Business Interactions, May, 2003, page 66, second column, first paragraph, MEDJAHED).

Claim 26:

Claim 26, the combination of MEDJAHED in view of COLLOMB teaches wherein data is one of original data and derived data, wherein original data is data external to the storage framework and derived data is data maintained within the storage framework (Business-to-Business Interactions, May, 2003, page 62, first column, section 2.3, fifth paragraph, MEDJAHED).

Art Unit: 2163

Claim 27:

Claim 27, the combination of MEDJAHED in view of COLLOMB teaches an apparatus for managing data associated with a given domain, comprising:

a memory for storing a storage framework; and at least one processor coupled to the memory and operative to (Business-to-Business Interactions, May, 2003, page 60, Figure 1, MEDJAHED):

(i) maintain a specification of data attributes representing one or more types of data to be managed (REFER to claim 1, wherein this limitation is substantially the same);

(ii) maintain a specification of algorithms representing one or more types of operations performable in accordance with the data attributes (REFER to claim 1, wherein this limitation is substantially the same); and

(iii) maintain a specification of relationships representing relationships between the data attributes and the algorithms; wherein the data attribute specification, the algorithm specification and the relationship specification are maintained in the storage framework which has multiple levels, the multiple levels being specified based on the given domain with which the data being managed is associated (REFER to claim 1, wherein this limitation is substantially the same).

Claim 30:

Claim 30, the combination of MEDJAHED in view of COLLOMB teaches a method of providing a service for managing data associated with a given domain, comprising the step of:

a service provider providing a data management system in accordance with one or more customers, the data management system being operative to (Business-to-Business Interactions, May, 2003, Figure 1 and page 72, section 4.2 and Figure 7 on page 73, MEDJAHED):

(i) maintain a specification of data attributes representing one or more types of data to be managed (REFER to claim 1, wherein this limitation is substantially the same);

(ii) maintain a specification of algorithms representing one or more types of operations performable in accordance with the data attributes (REFER to claim 1, wherein this limitation is substantially the same); and

Art Unit: 2163

(iii) maintain a specification of relationships representing relationships between the data attributes and the algorithms; wherein the data attribute specification, the algorithm specification and the relationship specification are maintained in a storage framework having multiple levels, the multiple levels being specified based on the given domain with which the data being managed is associated (REFER to claim 1, wherein this limitation is substantially the same).

Claim 31:

Claim 31, the combination of MEDJAHED in view of COLLOMB teaches wherein service level agreement report data is generated for a customer in accordance with one or more clauses of a service level agreement such that the one or more clauses are mapped to service level agreement data and is associated with a service provider representation of the data using one or more relationship mappings and service level agreement report data is generated in accordance with a sequence of processing relationships (Business-to-Business Interactions, May, 2003, page 73, section 4.2.2, third paragraph, MEDJAHED)

Claim 32:

Claim 32, the combination of MEDJAHED in view of COLLOMB teaches wherein customer business impact assessment data is generated for a customer in accordance with one or more expressed wishes of a customer such that one or more business impact evaluation data wishes of the customer are mapped to customer-related business impact data and is associated with a service provider representation of service level management data using relationship mappings and the customer-related data is generated in accordance with a sequence of processing relationships (Business-to-Business Interactions, May, 2003, page 59, section 1, wherein the introduction is defined, MEDJAHED).

Claim 33:

Claim 33, the combination of MEDJAHED in view of COLLOMB teaches wherein the business impact evaluation data may provide a customer with one or more customer relevant business impact assessments (Business-to-Business Interactions, May, 2003, page 72, section 4.2.1, first paragraph, MEDJAHED).

Art Unit: 2163

Claims 34 and 36:

Claims 34 and 36, the combination of MEDJAHED in view of COLLOMB teaches wherein the one or more customer relevant business impact assessments comprise one or more customer relevant what-if scenario result data sets (Business-to-Business Interactions, May, 2003, page 60, column 1, Figure 1, MEDJAHED).

Claim 35:

Claim 35, the combination of MEDJAHED in view of COLLOMB teaches wherein service provider business impact management data is generated for a customer in accordance with one or more wishes of the service provider such that the one or more service provider business impact evaluation data wishes are mapped to provider-facing business impact data and is associated with a service provider representation of service level management data using relationship mappings and service level management business impact data of the service provider is generated in accordance with a sequence of processing relationships (Business-to-Business Interactions, May, 2003, page 60, column 2, second paragraph, MEDJAHED).

Claim 37:

Claim 37, the combination of MEDJAHED in view of COLLOMB teaches wherein the one or more provider relevant business impact assessments comprise one or more what-if scenario result data sets and aggregations of business impact across multiple customers (Business-to-Business Interactions, May, 2003, page 64, column 1, wherein the first paragraph is defined, MEDJAHED).

Response to Applicant' Arguments

Applicant States & Argues:

The present application was filed on February 11, 2004 with claims 1-37. Claims 1-37 remain pending and claims 1 and 27-30 are the pending independent claims.

In the outstanding Office Action dated January 16, 2007, the Examiner rejected claims 1-37 under 35 U.S.C. §103(a) as being unpatentable over an B. Medjahed et al. article entitled, "Business-to-Business Interactions: Issues and Enabling Technologies," (hereinafter "Medjahed") in view of U.S. Patent Application Publication No. 2003/0212778 (hereinafter "Collomb").

With regard to the rejection of claims 1-37 under 35 U.S.C. §103(a) as being unpatentable over Medjahed in view of Collomb, **Applicants respectfully assert that the cited combination fails to establish a prima facie case of obviousness under 35 U.S.C. § 103(a), as specified in M.P.E.P. §2143.** M.P.E.P. §2143 states that three requirements must be met to establish a prima facie case of obviousness. First, there must be some suggestion or motivation to combine reference teachings. Second, there must be a reasonable expectation of success. Third, the cited combination must teach or suggest all the claim limitations. While it is sufficient to show that a prima facie case of obviousness has not been established by showing that one of the requirements has not been met, Applicants respectfully believe that none of the requirements have been met.

First, Applicants assert that no motivation or suggestion exists to combine Medjahed and Collomb in a manner proposed by the Examiner, or to modify their teachings to meet the claim limitations. For at least this reason, a prima facie case of obviousness has not been established. The Federal Circuit has stated that when patentability turns on the question of obviousness, the obviousness determination "must be based on objective evidence of record" and that "this precedent has been reinforced in myriad decisions, and cannot be dispensed with." In re Lee, 277 F.3d 1338, 1343 (Fed. Cir. 2002). Moreover, the Federal Circuit has stated that "conclusory statements" by an examiner fail to

Art Unit: 2163

adequately address the factual question of motivation, which is material to patentability and cannot be resolved "on subjective belief and unknown authority." *Id.* at 1343-1344.

In the Office Action, on page 4, paragraph 2, the Examiner provides the following statement to prove motivation to combine Medjahed and Collomb:

"It would have been obvious ... to modify the disclosure of Medjahed with Collomb for the purpose of implementing an improved method for providing a more resourceful work flow for managing relational data."

Applicants submit that the statement above is based on the type of "subjective belief and unknown authority" that the Federal Circuit has indicated provides insufficient support for an obviousness rejection. More specifically, the Examiner fails to identify any objective evidence of record, which supports the proposed combination. Thus, the Examiner's conclusory statements do not adequately address the issue of motivation to combine references.

It is well-settled law that "teachings of references can be combined only if there is some suggestion or incentive to do so." *ACS Hosp. Sys. v. Montefiore Hosp.*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984) (emphasis in original). Moreover, in order to avoid the improper use of a hindsight-based obviousness analysis, particular findings must be made as to why one skilled in the relevant art, having no knowledge of the claimed invention, would have selected the components disclosed by Medjahed and Collomb in the manner claimed (See, e.g., *In re Kotzab*, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000)). "It is improper, in determining whether a person of ordinary skill would have been led to this combination of references, simply to '[use] that which the inventor taught against its teacher.'" *In re Sang-Su Lee*, 277 F.3d 1338, 1344 (Fed. Cir. 2002) (quoting *W.L. Gore v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983)).

Secondly, Applicants asserts that there is no reasonable expectation of success in achieving the present invention through a combination of Medjahed and Collomb. For at least this

Art Unit: 2163

reason, a prima facie case of obviousness has not been established. Applicants do not believe that Medjahed and Collomb are combinable since it is not clear how one would combine them. No guidance was provided in the Office Action as to how the references can be combined to achieve the present invention. However, even if combined, they would not achieve the techniques of the claimed invention.

Lastly, the collective teaching of Medjahed and Collomb fails to suggest or to render obvious at least the elements of independent claims 1 and 27-30 of the present invention. For at least this reason a prima facie case of obviousness has not been established.

Independent claims 1 and 27-30, recite techniques for managing data associated with a given domain. A specification of data attributes representing one or more types of data to be managed is maintained. A specification of algorithms representing one or more types of operations performable in accordance with the data attributes is maintained. A specification of relationships representing relationships between the data attributes and the algorithms is maintained. The data attribute specification, the algorithm specification and the relationship specification are maintained in a storage framework having multiple levels. The multiple levels are specified based on the given domain with which the data being managed is associated.

Medjahed discloses techniques, systems, products and standards for business-to-business interactions and a set of criteria for assessing the different business-to-business interaction techniques, standards and products. Collomb discloses an object-oriented modeling approach used to represent telecommunication services, parameters and calculation expressions associated with the parameters. In rejecting the independent claims, the Examiner cites particular portions of Medjahed and Collomb for support for the rejection of each limitation. With regard to the limitation of "maintaining a specification of data attributes," the Examiner cites a portion of Medjahed describing trends in supporting business-to-business interactions, specifically XML-based business-to-business interaction frameworks. With regard to the limitation of "maintaining a specification of algorithms," the Examiner cites portions of Collomb that describe an expression class that defines expressions. With regard to the limitation of "maintaining a specification of relationships," the Examiner cites a portion of Collomb describing relational databases

Art Unit: 2163

and action procedures used to compute secondary parameters and/or aggregation values. **However, the combination of Medjahed and Collomb fails to disclose a specification of such action procedures in Collomb. Further, the cited combination fails to teach or suggest that the action procedures of Collomb represent relationships between data and elements in the expression class of Collomb.**

Finally, with regard to the limitation of maintaining the specifications in a storage framework having multiple levels, the Examiner cites the portion of Medjahed reciting trends in supporting business-to-business interactions, specifically Electronic Business XML (ebXML). However, ebXML describes business process specifications stored in a business library, and fails to disclose the maintaining of three different types of related specifications in a storage framework having multiple levels. Further, while ebXML describes three types of storage components, it fails to disclose that storage framework levels are specified based on the domain with which data of the specifications is associated.

Dependent claims 2-26 and 31-37 are patentable by virtue of their dependency from respective independent claims 1 and 30 and also recite patentable subject matter in their own right. Accordingly, withdrawal of the rejection to claims 1-37 under 35 U.S.C. §103(a) is therefore respectfully requested. In view of the above, Applicants believe that claims 1-37 are in condition for allowance, and respectfully request withdrawal of the §103(a) rejection

Examiner's Response:

Examiner is not persuaded. Referring to applicant arguments (see above – **BOLD** print), wherein Applicant argues:

(1) that the cited references fails to establish prima facie of obviousness under 35 U.S.C. § 103(a), as specified in M.P.E.P § 2143;

(2) Applicant also argues that there is no motivation to combine MEDjahed and Collomb in a manner proposed by the Examiner, or to modify their teachings to meet the claims limitations, wherein for at least the reasons a prima facie case of obviousness has not been established; and

Art Unit: 2163

(3) The combination of Medjahed and Collomb fails to disclose a specification of such action procedures in Collomb, and the cited combination fails to teach or suggest that the action procedures of Collomb represent relationships between data and elements in the expression class of Collomb.

Examiner recognizes that, "There are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art." *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998) (The combination of the references taught every element of the claimed invention, however without a motivation to combine, a rejection based on a *prima facie* case of obvious was held improper.). The level of skill in the art cannot be relied upon to provide the suggestion to combine references. *Al-Site Corp. v. VSI Int'l Inc.*, 174 F.3d 1308, 50 USPQ2d 1161 (Fed. Cir. 1999).

Examiner also recognizes that, obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so >. *In re Kahn*, 441 F.3d 977, 986, 78 USPQ2d 1329, 1335 (Fed. Cir. 2006) (discussing rationale underlying the motivation-suggestion-teaching requirement as a guard against using hindsight in an obviousness analysis) AND The teaching, suggestion, or motivation must be found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." *In re Kotzab*, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also *In re Lee*, 277 F.3d 1338, 1342-44, 61 USPQ2d 1430, 1433-34 (Fed. Cir. 2002) (discussing the importance of relying on objective evidence and making specific factual findings with respect to the motivation to combine references); *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

Art Unit: 2163

Therefore, according to M.P.E.P. §2143, which states that three requirements must be met to establish a prima facie case of obviousness. First, there must be some suggestion or motivation to combine reference teachings. Second, there must be a reasonable expectation of success. Third, the cited combination must teach or suggest all the claim limitations.

In this case, (1) the motivation to combine the reference teaching ~ (SEE COLLOMB - paragraph [0068], wherein the SLA editor could serve as a bridge between customer management applications and software, and the software is a Unified Modeling Language which is suited for modeling types of services, which corresponds a set of objects that share the same attributes, operations, relationship and semantics as stated within paragraph [0073] and paragraph [0069], wherein the user interface includes a tool to allow the user to distribute and redistribute the tasks of each of the software components, wherein this is interpreted to be equivalent to an "specification of such action procedures"); (2) there must be reasonable expectation of success ~ (SEE COLLOMB - paragraph [0096] and [0102], wherein the services are modeled using the UML which mainly models classes and interactions between objects, which is interpreted to be equivalent to "building relationships between the data" and paragraph [0117], the system supports continuous service improvement by capturing service level information for root cause analysis, trending and reporting, and therefore interpreted to be equivalent to "expectation of success"); (3) the prior art references (or references when combined) must teach or suggest all the claim limitations ~ (It would have been obvious at the time of the invention was made for one person of the ordinary skill in the art to modify the disclosure of MEDJAHED in view of COLLOMB (see above citations) for the purpose of implementing and establishing a useful method for providing a more efficient resourceful work flow for managing relational data).

Prior Art of Record

1. MEDJAHED et al. (Non-Patent Literature, Business-to-Business: issues and enabling technologies Interactions, May, 2003, Volume 12, Issue 1).
2. COLLOMB et al (US Publication No. 2003/0212778).

Art Unit: 2163

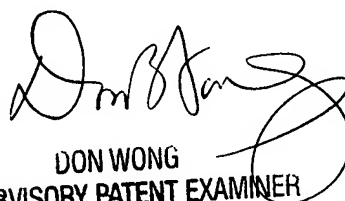
Point of Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helene Rose whose telephone number is (571) 272-0749. The examiner can normally be reached on 8:00am - 4:30pm Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HRR
Technology Center 2100
June 18, 2007


DON WONG
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100